Vol. 50, No. 5 ISSN 0027-965X September-October 1995

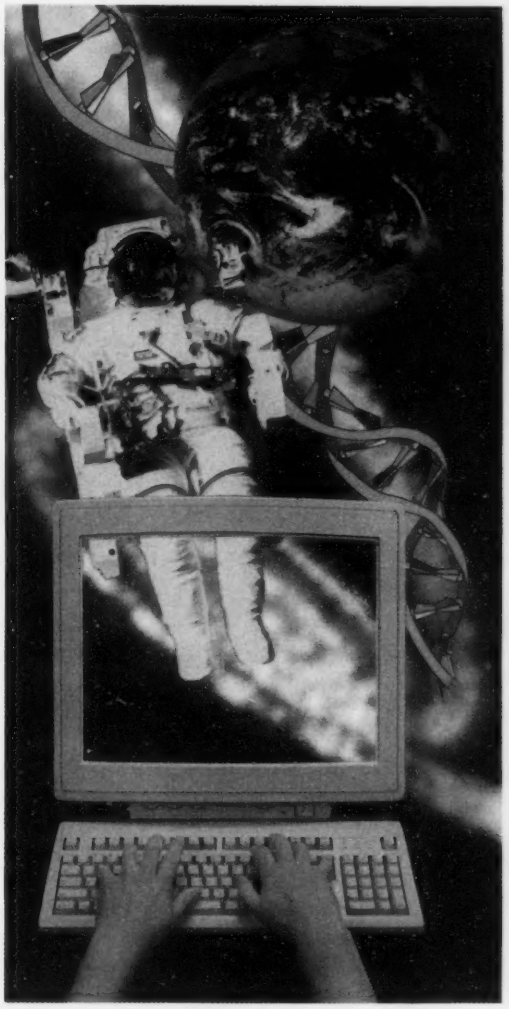
NATIONAL LIBRARY of MEDICINE NEWS

Published for institutions and individuals interested in health sciences communications.

SPACELINE: Successful Launch of Newest NLM Database Announced

Can we learn to live and work in the challenging environment of space, overcoming the adverse effects of weightlessness and cosmic radiation? Can we grow plants in space to supply needed food? What can living in the space environment, including living without the ever-present force of gravity, tell us about ourselves and our health here on Earth?

Such questions will be easier to answer now thanks to the new bibliographic database SPACELINE—a cooperative venture of the National Library of Medicine and the National Aeronautics and Space Administration (NASA). The purpose of SPACELINE is to consolidate the results of a growing body of space life sciences research into a single, easily accessible resource. Its intended audience is the space life sciences community here and abroad; the medical, scientific, and scholarly communities worldwide with an interest in the field; and the general public.



Coverage and Scope

SPACELINE consists of references to journal articles, technical reports, books, book chapters, conference proceedings, meeting abstracts, bibliographies, and audiovisual materials. Sources consist of all references in scope from MEDLINE (1966 to present), CATLINE, and AVLINE, as well as thousands of citations from 1961 to the present contributed by NASA.

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NATIONAL LIBRARY of MEDICINE NEWS

Donald A. B. Lindberg, M.D., director, NLM
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The Secretary of Health and Human Services has determined that the publication of this bimonthly periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through June 30, 1996.

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences—Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984, effective with Vol. 43, No. 6-7.

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The database covers the following general areas:

- Clinical medical support to humans in space,
- Physiology, metabolism, and growth and development of the cells, organs, and systems of humans, animals, and plants as they are affected by the space environment,
- Environmental protection and support of humans in space, including life support, toxicology, and radiation, and
- Psychological, behavioral, and human factors involved in living in the space environment.

Access

Online access to SPACELINE, which is being billed at the same rate as MEDLINE, is available to anyone holding a valid NLM user code. Searchers may issue a "File SPACELINE" or "File SPACE" command at an ELHILL system prompt or may select SPACELINE from the OTHER database list in Grateful Med. Updates to both the PC and MAC versions of Grateful Med which will enable SPACELINE searching are being sent to all users in January; users who do not wish to wait until then to search SPACELINE through Grateful Med may obtain a copy of the update from the National Technical Information Service by asking for *PB95-50531* (PC) or *PB95-505319* (MAC).

An article in the September-October issue of the *NLM Technical Bulletin* provides more details about SPACELINE, including hints for searching, information about obtaining documents cited in SPACELINE, and other technical details. A SPACELINE office has been established on behalf of NASA at the Uniformed Services University of the Health Sciences (USUHS) in Bethesda. Questions concerning SPACELINE scope and coverage should be directed there—telephone: 301/295-2482; fax: 301/295-5271; e-mail: *SPACELINE@usuhsb.usuhs.mil;* or by writing to: SPACELINE, Department of Physiology, USUHS, 4301 Jones Bridge Road, Bethesda, MD 20814-4799. For assistance with Grateful Med-related questions, please contact the MEDLARS Service Desk (800/638-8480 or 301/496-6193). □

Director Receives RCI Recognition Award

NLM Director **Donald A.B. Lindberg,** M.D., has received one of Industry's most prestigious awards—the RCI Annual Industry Recognition Award. He was honored for his "visionary leadership and distinguished accomplishments" as the founding director of the National Coordination Office for High Performance Computing and Communications, Office of Science and Technology Policy, Executive Office of the President (*News,* January-February 1995). The award was announced by **Jim Kasdorf,** director of supercomputing, Westinghouse Electric corporation, and chairperson of the RCI Industry Award Committee.

Dr. Lindberg received the award at a banquet in conjunction with RCI, Ltd.'s North American Annual Member Executive Conference on October 31, 1995. RCI, Ltd. is a member-based international consortium of users and vendors of advanced information technology systems for commercial and technical applications. □

NLM Funds Second Round of AIDS Outreach Projects

In August 1995, NLM announced 16 recipients of awards of up to $25,000 each to community-based organizations and libraries (public and health sciences). These awards will enable the recipients to develop local programs for improving access to HIV/AIDS-related information. The first awards were made in 1994 to 19 organizations (*News,* January-February 1995). This program resulted from recommendations made at the NIH HIV/AIDS Information Services Conference hosted by NLM in June 1993.

Awards were made to the following groups:

- South Central Research Library Council (Thompkins County, New York)
- Gay Men's Health Crisis, Inc. (New York, NY)
- NH/VT HIV Information Coalition, Dartmouth College (Hanover, NH)
- Test Positive Aware Network (Chicago, IL)
- New York Public Library, Office of Branch Libraries (New York, NY)
- Newburgh Free Library (Newburgh, NY)
- AIDS Action Committee (Boston, MA)
- Cathedral City Library (Cathedral City, CA)
- Pittsburgh AIDS Task Force (Pittsburgh, PA)
- Planetree Library (Santa Clara County, CA)
- Western Baptist Hospital Library (Paducah, KY)
- AIDS Resource Center of Wisconsin, Inc. (Milwaukee, WI)
- University of Illinois at Chicago (Chicago, IL)
- AEGIS (San Juan Capistrano, CA)
- University of Texas, Houston, School of Public Health (Houston, TX)
- Delta Health Education Center (Helena, AK)

As with the previous group of awards, many of these projects involve the efforts of a number of organizations and libraries.

The awards are primarily intended to promote improved access to HIV/AIDS information to patients, the affected community and their care givers, and to the general public. Implementation of this goal may include providing access to electronic resources, training in the use of these resources, expanding collections, Internet connections, development of locally specific information materials, and opening access to collections and document delivery services. □

NLM-Funded Program Receives National Recognition

The Learning Resources Services (LRS) of the Western Maryland Area Health Education Center (AHEC) has received the "Recognition of Excellence in Learning Resources" award for its program, Access Computer Technology/ Information Outreach Network (ACTION). ACTION is a health information clearinghouse program to serve health practitioners and students in a nine-county, tri-state area of Western Maryland, Pennsylvania, and West Virginia. The program allowed the AHEC to place 19 computer workstations in medically underserved health and education facilities. The program provided training and support services to initiate an electronic network for accessing health information and other resources.

The National Library of Medicine helped fund ACTION through a grant, in addition to support by the Southeastern/Atlantic Regional Medical Library and the University of Maryland at Baltimore health Sciences Library.

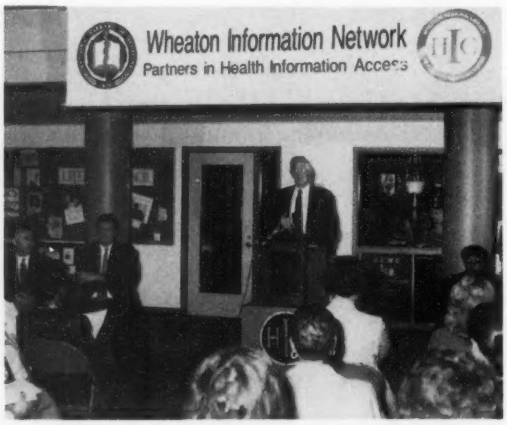
This honor is one of five national awards presented by the National AHEC Center Directors' Association and the Recognition of Excellence Committee. There are currently 141 AHEC Centers in 36 states with active programs.

At present, 36 Western Maryland/Tri-State institutions in the Western Maryland service area are linked electronically to regional and national health information services. Throughout the past four years, the program has introduced and educated more than 4500 individuals about using computers in medicine. □

NLM & County Provide Enhanced AIDS and Environmental Health Information Services

On October 23, a new project to improve public access to AIDS and environmental health topics through a local public library was unveiled at ceremonies at the Wheaton Regional Library's Health Information Center. The project, which provides access to NLM databases and to other resources on the Internet, was funded through a contract between the National Library of Medicine and the Montgomery County Department of Public Libraries. The NLM is located in Montgomery County, Maryland.

One workstation will provide easy access, via Grateful Med, to NLM databases dealing with HIV-AIDS, toxicology, and environmental health topics. Two other workstations will be set up with The Health Information Center Home Page to guide users to relevant consumer health topics on the Internet.



Dr. Lindberg addresses an audience of over 100 invited guests at ceremonies celebrating the new partnership between the National Library of Medicine and the Wheaton Regional Library. Other speakers on the program, shown seated from left, included Derick Berlage, president, Montgomery County Council, and Douglas M. Duncan, Montgomery County executive.

Watching Wheaton library staffer Toan Pham demonstrate some of the new electronic information services made possible by the NLM-Wheaton partnership are, from left, Pauleze Bryant, librarian, Calvin Coolidge Senior High School; Elliot Siegel, Ph.D., NLM associate director for health information programs development; Elaine Barkley, manager, Health Information Center, Wheaton Regional Library; Kent Smith, NLM deputy director; Douglas M. Duncan, Montgomery County executive; and Donald A. B. Lindberg, M.D., NLM director.

"Historically, the NLM has served primarily doctors and scientists," NLM Director **Donald A. B. Lindberg** said. "With today's emphasis on health information for consumers, we are pleased to join with Montgomery County in this pioneering effort to encourage citizens to take advantage of the new technology to access NLM's AIDS and environmental databases."

County Executive **Douglas M. Duncan** thanked the Library for its "generous support of this important service, which will allow more information and better access to resources on AIDS and environmental health for not only Montgomery County residents but for people throughout the region."

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History of Medicine Chief Named

Elizabeth Fee, Ph.D.—a widely respected teacher, author, and scholar—has joined the Library's staff as chief of the History of Medicine Division, the component of NLM housing resources for medical historical scholarship which are among the richest in the world. Prior to this appointment, Dr. Fee was professor of history and health policy at The Johns Hopkins University.

Dr. Fee received her B.A. with honors in both biochemistry and in the history and philosophy of science from Cambridge University, and her Master's and Ph.D. degrees from Princeton University.

Dr. Fee's association with The Johns Hopkins University began as an assistant professor in humanities in the School of Health Services (1974-78), and continued in the School of Hygiene and Public Health where she taught history and health policy in the Department of International Health (1979-81) and in the Department of Health Policy and Management (1979-1995).

She has written widely on a number of topics, including women's health, the AIDS crisis, and the history of public health in the United States. Her published works include over a hundred book chapters, journal articles, editorials, popular writings, book reviews, and review articles. In addition to a recent biography of Henry Sigerist, she has co-edited *Women's Health, Politics, and Power: Essays on Sex/Gender, Medicine, and Public Health* (Baywood Press, 1994) and *AIDS: The Making of a Chronic Disease* (University of California Press, 1992). She is the author of two books on the Johns Hopkins School of Hygiene and Public Health—the 1987 work, *Disease and Discovery,* which covers 1916-1939, and the soon to be published *Patterns of Health and Disease,* covering the School from 1939-1967.

Dr. Elizabeth Fee, new chief of NLM's History of Medicine Division.

Dr. Fee is an active member of many professional societies, including the American Association for the History of Medicine and the American Public Health Association. She serves on the editorial boards of a number of journals and regularly reviews journal articles and books for the major publications in her field. She won the "Golden Apple Award for Teaching" at Johns Hopkins School of Hygiene and Public Health in 1987 and 1991, and has received a number of honors as an invited lecturer throughout the country. □

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Other speakers during the program included **Daniel Beavin,** head of the Wheaton Regional Library; **Elaine Barkley,** manager of the Health Information Center; **Derick Berlage,** president of the Montgomery County Council; and **Agnes Griffen,** director of the Montgomery County Department of Public Libraries. Following the official ceremonies, more than 100 guests had an opportunity to tour the Health Information Center.

A number of groups are represented on an advisory committee which will continue to provide guidance to the project. In addition to the County Department of Public Libraries and NLM, they include the Maryland Department of Education's Division of Library Development and Services; the Whitman Walker Clinic; the University of Maryland Health Sciences Library; Howard University; the Ministerium Roundtable; and a number of community representatives. □

NLM Welcomes New Associates

In September, Library staff welcomed two recent U.S. library school graduates and a librarian from the Czech Republic who have joined the staff as NLM Associates. The two U.S. associates have begun a one-year postgraduate traineeship which orients them to the major programs and services of NLM and provides opportunities for independent projects. Our international associate arrived last spring and will return to the Czech Republic in January.

Zdenka Geisslerova comes to NLM from the National Medical Library in Prague, where she worked in the search department for the past 16 years. While at NML, she worked with the Department of Medical Informatics of the 2nd Medical Faculty in Prague-Motol to teach information skills to medical students. She also provided information to a small research team in child neurology for two years after finishing her studies in librarianship and information science at Charles University in Prague. Before coming to the University, she worked as a library assistant at the Institute of Medical Microbiology at 1st Medical Faculty in Prague. Ms. Geisslerova is eager to share what she learns with her colleagues not only at the National Library, but also with those in other libraries. She says that they are lacking in equipment and knowledge of how to best provide services and share resources. She explains that the Revolution of November 1989 had a profound affect on the health care system in the Czech Republic, but she acknowledges that change has moved slowly because of the lack of experience managing in a manner other than that dictated by the totalitarian regime. Her professional interests include library networking and user training, and also hopes to take part in some activities relating to patient information. In her free time Zdenka enjoys waling and concerts, but her favorite pastime is gardening.

Kristin Stoklosa received her BA in English and classics from Canisius College (Buffalo, NY, 1993) and her MLS with emphasis in information processing from the State University of New York at Buffalo (1995). As an undergraduate, she tutored English as a second language to Canisius students and studied for a semester at Oxford University in England. Initial experience as a volunteer at the Albright-Knox Art Gallery Library and Archives complemented her masters degree practicum in the Humanities and Social Sciences Department of the Buffalo and Erie County Public Library (1994). While completing her MLS, she worked at the University's Health Sciences Library (1993-1995). There, her focus

The 1995/6 NLM Associates are (*from left*) Terri Clark, Kristin Stoklosa, and Zdenka Geisslerova.

was in the History of Medicine Collection where she provided reference services, cataloged monographs and prepared exhibits. Also active in the acquisitions and information services departments, her role in the latter encompassed reference desk work, bibliography preparation, and group instruction on database searching. Her professional interests include academic/health sciences librarianship and computer applications in information retrieval. At every opportunity Kristin frequents art galleries as well as the ballet.

Terri Clark received a BS in International Finance from the University of Southern California in 1986. Before attending library school, Terri sampled many career options including accounting, automobile promotions, and property to name just a few. She completed her MLIS in June of this year at the University of Washington. While at the UW she worked as

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NLM Hosts Conference on "Medical Pluralism in the Indian Princely States"

The Library, in conjunction with **Kenneth X. Robbins,** M.D., will host a conference on "Medical Pluralism in the Indian Princely States," on December 1, 1995. It complements an exhibit on display at the Library through December 31 (*News,* July-August 1995). The conference, to be held at the Natcher Conference Center (located on the NIH campus near NLM), begins at 10:00 a.m. and ends at 3:00 p.m.

Speakers and topics include:

- **Kenneth Robbins,** M.D., "Self-immolating Widows and Degenerate Maharajas: Reality and Myth"; "Medical Pluralism in the Indian Princely States."
- **Carol Henderson,** Ph.D. (Rutgers University), "Famine in Rajasthan."
- **Maneesha Lal,** Ph.D. (University of Pennsylvania), "The Dufferin Fund and Hospitals Staffed by Women in the Princely States."
- **Rachel McDermott,** Ph.D. (Barnard College), "Goddesses and Healing."
- **Helen Sheehan,** Ph.D. (St. John's University), "Organization, Practice, and Patronage of the Ayurvedic and Unani Medical Systems in Hyderabad before and after Independence."
- **Stephen Greenberg,** Ph.D. (NLM), "The Hyderabad Chloroform Commission."

Viceroy of India Lord Irwin laying the cornerstone of a new Western-style hospital to be named after him in Jamnagar, 1927.

There will also be a screening of a film by **Toby Beach** and Travelling East Productions entitled "From Metal to Medicine: the Bhasma Process in Ayurvedic Medicine."

Registration is not required; seating is on a first-come basis. For further information on the conference or the exhibit, contact: Dr. Stephen Greenberg, History of Medicine Division, NLM; phone: 301/496-5405; Internet: *hmdref@nlm.nih.gov.* □

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reference assistant at the Health Sciences Library, as a library technician at the National Marine Fisheries Library, and as a research assistant for Dr. Raya Fidel. She also did a World Wide Web Homepage fieldwork project with Eve Ruff (a former associate) at the Fred Hutchinson Cancer Research Center. Terri's professional interest include outreach, medical informatics, and integrated information systems. For fun, she enjoys auto racing, salsa dancing, master's swimming, and the great outdoors.

1996/97 Associate Program

Applications are available for the 1996/97 Association Program (September 1996 to August 1997). Library school students and practicing librarians are invited to apply. The filing deadline in *March 1, 1996.* The program is open to U.S. citizens receiving a masters degree in library/information science by August 1996. The international program is on hold for 1996/97; however, it may resume at a future date.

For further information, please contact:

Martha Fishel, Coordinator
NLM Associate Program
National Library of Medicine
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Bethesda, MD 20894
301/496-5501
Fax: 301/402-1384
e-mail: *martha_fishel@ccmail.nlm.nih.gov*

□

Carol Evans Mourned

Carol Ann Evans, a librarian at the National Library of Medicine, died on September 27 after a brave battle with multiple myeloma. At NLM she helped manage the Library's National Network of Libraries of Medicine (NN/LM). Known for her generous and outgoing spirit, she will be greatly missed by her friends and colleagues at NLM and throughout the Network.

Ms. Evans, a graduate of Douglass College, received her Master of Science degree from Columbia University in 1973. Later that year she began her career in medical librarianship as an Associate in NLM's post-graduate training program. She remained at NLM in the Technical Services Divsion, first as a systems librarian overseeing NLM's first internal automated system for acquiring library materials, and later as a supervisor in the Selection/Acquisition Section, until 1978. During that time, she initiated sign-language classes for non-hearing impaired employees, so that they could communicate more effectively with their hearing impaired colleagues at the Library. These classes were later offered throughout NIH.

In 1978, Ms. Evans moved to the Library of Congress where she supervised a national book and periodical interlibrary lending program at the National Library Service for the Blind and Physically Handicapped. In 1980 she accepted a position at the U.S. Geological Survey, where she remained until 1984 when she returned to NLM to work in the NN/LM Network Office to assist in managing NLM's National Network of Libraries of Medicine. While in the Network Office, Ms. Evans also served as head of the Lead Users (now the Computer Support Coordinators) in Library Operations for several years. In 1993, as part of her continuing interest in making NIH a better environment for its employees, she worked with the NIH Women's Advisory Committee to bring a series of parenting seminars, which were cosponsored by NLM, to the NIH campus. During her career she received a number of awards, including the NIH Merit Award. A memorial service was held on October 5th at the United Christian Parish in Reston, VA. □

Publications

MeSH Tools from NTIS

The following titles are now available from the National Technical Information Service (5285 Port Royal Road, Springfield, VA 22161; phone: 703/487-4650). *Note:* for orders totaling less than $50, add $4 handling fee; $50.01-$100, add $6; over $100, add $8; add $2 to these fees for orders sent outside of the U.S., Canada, and Mexico. The MeSH tools are also available on a standing order basis; for further information contact NTIS's Subscription Service, 703/487-4630.

- *Medical Subject Headings, Annotated Alphabetic List, 1996.* PB96-964801/GBB. **$47.50** (U.S., Canada, and Mexico); $95 all others. An alphabetic list of all subject descriptors used by indexers and catalogers at the National Library of Medicine. It includes subject headings, cross references, geographic headings, non-MeSH terms, check tags, tree numbers, and note for indexers, catalogers, and online searchers.
- *Medical Subject Headings, Tree Structures, 1996.* PB96-964901/GBB. **$43** (U.S., Canada, and Mexico); $86 all others. Contains all Medical Subject Headings currently in use by NLM's indexers, catalogers, and searchers.

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NLM Executive Officer Named

Donald C. Poppke will be joining the NLM staff in the position of executive officer on November 13, replacing **Kenneth Carney** who recently retired. Mr. Poppke is not a newcomer to NIH. He began his career here as a biologist in 1974 in the National Institute of Dental Research and, in 1981, he was selected for the NIH Management Intern Program with the Office of the Director. Mr. Poppke later held two other NIH positions: in 1984 he was an administrative officer in the National Cancer Institute, and from 1986 to 1987, he served as executive officer for the National Center for Nursing Research. He is currently chief of the Public Health Branch within the HHS Office of the Assistant Secretary for Management and Budget.

Mr. Poppke

Mr. Poppke, who has a B.S. in biological sciences from Washington and Lee University and an M.S. in the technology of management from American University, is the recipient of numerous awards including the 1983 Outstanding Graduate Scholar of the Year from both the American University Center for Technology and Administration and the College of Public and International Affairs. In 1980 he received the Outstanding Young Men of America Award. He has also published in several scientific journals.

As NLM executive officer, Mr. Poppke will be responsible for planning and directing the administrative management functions of the Library, including financial, personnel, and contracts management, administrative services, and management analysis and legislation. □

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Headings are arranged in a hierarchical manner showing relationships between broader and narrower terms; geographic descriptors are also included. (*Tree Structures* appears as the second section in "black and white *MeSH*," the familiar name for the supplement to the January *Index Medicus*.) *Tree Structures* also includes "MeSH Tree Annotations," formerly published separately as a tool or indexes and searchers.

- *Permuted Medical Subject Headings, 1996.* PB96-965191.GBB. **$38.75** (U.S., Canada, and Mexico); $77.50 all others. A computer-generated display of all words contained in NLM's subject headings, cross-references, check tags, and geographic descriptors in the *1996 Annotated Alphabetic MeSH. The Permitted MeSH* takes each significant word that appears in each MeSH term and then lists all the MeSH terms in which that word appears.

New *Current Bibliographies in Medicine*

NLM's Reference Section produces a series of bibliographics covering distinct subject areas of current interest to the biomedical community.

CBM95 series subscriptions are available for **$47** ($58.75 foreign) or individually for **$4.75** ($5.94 foreign). A list of available titles appears in each monthly issue of *Abridged Index Medicus* and *Index Medicus*. Mail orders to: New Orders, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. GPO Phone Orders: 202/788-3238. Recent CBMs are also accessible through FTP.

- CBM 95-5: *Whole-body irradiation.* January 1944 through December 1974. 229 citations. [S/N 817-011-00005-5]. *Note:* This bibliography was produced with the Advisory Committee on Human Radiation Experiments, which was established by President Clinton in January 1994.

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- CBM 95-6: *Integration of behavioral and relaxation approaches into the treatment of chronic pain and insomnia.* January 1985 through July 1995, 1147 citations. [S/N 817-011-00006-3]. Produced for an NIH Technology Assessment Conference of the same name, October 16-19, 1995.

Bioethics: Eugenics, Gender Issues

Two recent papers in the Scope Note Series from the National Reference Center for Bioethics Literature have appeared. *Eugenics* (Scope Note 28) is an 11-page paper providing background information and annotated references to literature which documents issues raised by theories and actions in this area of genetics. *Gender Issues in Health Care* (Scope Note 27) deals with past differences in the care and treatment of women compared to men. They appeared respectively in the June and March 1995 issues of the *Kennedy Institute of Ethics Journal,* and may also be obtained as separate reprint versions for $5 each, prepaid ($8 overseas airmail) from the National Reference Center for Bioethics Literature, Kennedy Institute of Ethics, Georgetown University, Washington, DC 20057-1065 (phone: 202/687-3885 or 800/MED-ETHX). □

Monograph & Serial Gaps

NLM regularly seeks the help of the medical library community in filling gaps in its monograph and serial collections. If you can provide any of these items we would be most grateful.

Monographs

If you are able to provide a copy of any of the monographs listed below, please send to:

National Library of Medicine
TSD-MONOGRAPHS Attn: L. Turnage
Bethesda, MD 20894

Greenblatt, Robert B. Sex & circumstance : humanity in history. Tallahassee, Fla., USA : Loiry Pub. House, c1987.

Hassett, James. A primer of psychophysiology. San Francisco : W. H. Freeman, c1978. (A series of books in psychology).

Murgatroyd, Stephen J., editor. Counselling and helping. London : British Psychological Society ; New York : Methuen, 1985. (Psychology in action)

Steele, Arthur Robert. Flowers for the king : the expedition of Ruiz and Pavon and the Flora of Peru. Durham, N. C., Duke University Press, 1964. (Duke historical publications)

Shiraki, Mohamed K. Yousef, editor. Man in stressful environments : diving, hyper- and hypobaric physiology. Springfield, Ill., U.S.A : C.C. Thomas, c1987. (American lecture series ; publication no. 1072).

Serials

Please address serial issues to:

National Library of Medicine
TSD-GAPS Attn: C. Fields
Bethesda, MD 20894

Abdominal Surgery 7:7-12, 1965;26:11-12, 1984;27:1, 1985

ABMS Directory of Certified Colon and Rectal Surgeons 3RD, 1988

Abstracts in Infectious Disease 2:10, 1993

Academic Nurse 9:3, 1990-91

ACOG Newsletter 16:10, 1972;24:12, 1980;25:1-12, 1981

Acta Medica Croatica 46:3-5, 1992

Acupuncture 1:1, 1990

Advances in Inflammation Research 13, 1989

Agent Orange Review 2, 1983;3, 1984

Aging and Long-Term Care 1:1, 1985

AHA News 23:1-2, 1987;29:31, 1993

AIDS Information Exchange 1:1-8, 1984;2:1,7, 1985;3:2, 1986;6:6, 1989

AIDS Institute Newsletter 1:1-4, 1984-85

AIDS Targeted Information Newsletter 1:1-2,11-12, 1987

Anesthesia and Analgesia 79:2, 1994

Atencion Primaria 12:5, 1993

Bash Magazine 7:6-11,1988

Basic Automated Birth Yearbook, North Carolina Residents 1986

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Bayou Tech 15:1, 1970;15:3, 1971;16:2-3, 1972;18:1, 1974;20:1-4, 1975-76;28:3-4, 1984

Berks County Medical Record 72:7-10, 1981;73:1-6, 1982

British Journal of Hospital Medicine 51:1-2, 1994;52:6, 1994

Cell Proliferation 26:5-6, 1993

Cerebral Evoked Potentials N.22-23, 1978

Child: Care, Health and Development 19:6, 1993

Clinical and Laboratory Haematology 15:3-4, 1993

Comparative Biochemistry and Physiology. 109:1-3, 1994

Continuing Care 13:6, 1994

Dallas Medical Journal 76:6, 1990;77:1-4, 1991

Dental Dimensions 7:4, 1973;9:5-6, 1975;10:1-4, 1975-76;11:4, 1977;12:1-4, 1977-78;20:4, 1987

Dental Images 9:3, 1969;10:1-2, 1970;19:4, 1979;22:1, 1982;23:1, 1983

Diabetes Research 21:1-4, 1992

Endocrine Journal 41:4, 1994

European Clinical Laboratory 8:3, 1989;11:1, 1992

European Journal of Immunogenetics 20:5-6, 1993

European Journal of Rheumatology and Inflammation 13:2-4, 1993

Frontiers in Biotransformation 3, 1990;5, 1991

Grants and Awards 1966, 1971-76, 1980-81

Greater Kansas City Medical Bulletin 70:2, 1975;86:2,6, 1991

Heart and Vessels 9:2, 1994

Insect Molecular Biology 2:1-4, 1993

Irish Journal of Medical Science 163:1, 1994

Irish Medical Journal 86:3, 1993;87:1,4, 1994

Journal of AOAC International 77:1, 1994

Journal of Neural Transmission. Parkinsons Disease and Dementia Section 7:1, 1994

Klinicheskaia Khirurgiia N.7, 1992;N.1-2, 1993

Letters in Applied Microbiology 18:1, 1994

Neurology 43:8, 1994

Neuropsychologia 32:1, 1994

Plant Foods for Human Nutrition 44:4, 1993

Progress in Neurobiology 42:1, 1994

Przeglad Lekarski 48:1-12, 1991;49:6, 1992;50:1-12, 1993

Psychoneuroendocrinology 19:1, 1994

Reports on Health and Social Subjects 27, 1982;37, 1989

Revista De La Facultad De Ciencias Medicas/ Universidad Nacional De Cordoba 46:2, 1988

Revista De Medicina De La Universidad De Navarra 38:2,4, 1993

Society for Applied Bacteriology Symposium Series 22, 1994

Statistics in Medicine 13:1, 1994

Toxicon 32:1, 1994

Transactions and Studies of the College of Physicians of Philadelphia 15:4, 1993;16:1-4, 1994

Vestnik Oftalmologii 109:2-3, 1993

Vestnik Otorinolaringologii N.1-3, 1993

Veterinary Record 135:5, 1994

Voprosy Kurortologii, Fizioterapii I Lechebnoi Fizicheskoi Kultury N.2-3, 1993

Zygote 2:3-4, 1994

NLM in Print

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NATIONAL INSTITUTES OF HEALTH
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FACT SHEET
A World of Knowledge for the Nation's Health
October 1995

TOXICOLOGY AND ENVIRONMENTAL HEALTH INFORMATION PROGRAM

Mission

The Toxicology and Environmental Health Information Program (TEHIP) evolved from the Toxicology Information Program (TIP) which was established in 1967 at the National Library of Medicine in response to recommendations made in the 1966 report "Handling of Toxicological Information," prepared by the President's Science Advisory Committee. The objectives of the TIP were to: (1) create automated toxicology data banks, and (2) provide toxicology information and data services. The TEHIP, now a major function of the Division of Specialized Information Services (SIS), has subsumed the TIP, following recommendations of NLM's long range planning panel and the advice of its Board of Regents. The mission under TEHIP is broader in environmental and occupational health and (1) provides selected core information resources and services; (2) facilitates access to national and international information resources; and (3) strengthens the information infrastructure of toxicology and environmental health.

Services

The Division of Specialized Information Services at NLM provides online services, responds to queries, sponsors publications, supports the information requirements of other Federal agencies, and supports interactive retrieval services in toxicology and environmental health, as well as in other health-related areas. Online databases are made available as part of NLM's Medical Literature Analysis and Retrieval System (MEDLARS®). Some of the databases are made available through the Toxicology Data Network (TOXNET®), an integrated system developed by NLM for building, reviewing and searching toxicology and environmental health-related databases.

Online Databases

ChemID® (Chemical Identification File) serves as an authority file for the identification of over 260,000 chemical substances cited in NLM databases. For a given substance, ChemID provides CAS Registry Numbers and chemical names, both of which can be used as search terms to enhance retrieval in the subsequent search of other NLM databases. ChemID also contains SUPERLIST, a collection of lists of chemical organizations.

CHEMLINE® (Chemical Dictionary Online) is a chemical dictionary with nearly 1.5 million records on chemical substances found in various NLM files, as well as in the EPA Toxic Substances Control Act Inventory. It contains chemical names, synonyms, Chemical Abstracts Service (CAS) Registry Numbers, molecular formulas, NLM file locators and, where appropriate, ring structure information.

TOXLINE® (Toxicology Information Online) and TOXLIT® (Toxicology Literature from Special Sources) are bibliographic databases covering the pharmacological, biochemical, physiological, and toxicological effects of drugs and other chemicals. TOXLINE and TOXLIT, and their respective backfiles, TOXLINE65 and TOXLIT65, together contain over 4 million citations, almost all with abstracts and/or index terms and CAS Registry Numbers.

DIRLINE® (Directory Of Information Resources Online) is an online directory file with nearly 18,000 records on resource centers, primarily health-science related, which are willing to respond to public inquiries in their specialty areas. DBIR® (Directory of Biotechnology Resources) is included as a component of DIRLINE.

HSDB® (Hazardous Substances Data Bank) is a comprehensive, scientifically reviewed, factual database containing records for over 4500 toxic or potentially toxic chemicals. It contains extensive information in such areas as toxicity, environmental fate, human exposure, chemical safety, waste disposal, emergency handling, and regulatory requirements. The data are taken from a core set of monographs augmented with government documents, special reports, and primary journal literature.

RTECS® (Registry of Toxic Effects of Chemical Substances) contains toxic effects data on some 130,000 chemicals. It is built and maintained by the National Institute for Occupational Safety and Health (NIOSH) and covers such areas as skin/eye irritation, carcinogenicity, mutagenicity, and reproductive consequences.

CCRIS (Chemical Carcinogenesis Research Information System) is a factual data bank sponsored by the National Cancer Institute. It contains evaluated data and information, derived from both short- and long-term bioassays on 6700 chemicals. Studies relate to carcinogens, mutagens, tumor promoters, cocarcinogens, metabolites and inhibitors of carcinogens.

DART® (Developmental and Reproductive Toxicology) is a bibliographic database covering teratology and developmental toxicology literature published since 1989. It is a continuation of ETICBACK.

ETICBACK (Environmental Teratology Information Center Backfile) is a bibliographic database covering teratology literature published from 1950 to 1989. It is continued by DART.

EMIC and EMICBACK (Environmental Mutagen Information Center and its Backfile) are bibliographic databases covering agents tested for genotoxic activity in literature from 1950 to the present.

GENE-TOX is a data bank created by the Environmental Protection Agency with genetic toxicology test results on over 3,000 chemicals. In the field of genetic toxicology, selected mutagenicity assay systems and the source literature are reviewed by work panels of scientific experts for each of the test systems under evaluation, and the GENE-TOX data bank is the product of this review. Each test system in GENE-TOX has been peer reviewed and is referenced.

IRIS (Integrated Risk Information System) is an online database built by the Environmental Protection Agency (EPA). It contains EPA carcinogenic and non-carcinogenic health risk assessment and regulatory information on over 600 chemicals. The risk assessment data have been scientifically reviewed by EPA scientists. IRIS also contains EPA Drinking Water Health Advisories and references.

TRI (Toxic Chemical Release Inventory) contains information on the annual estimated releases of toxic chemicals to the environment. This series of files is based upon data submitted to the Environmental Protection Agency from industrial facilities around the country. These data include names and addresses of the facilities, and the amount of certain toxic chemicals they release to the air, water, or land, or transfer to waste sites. In 1991 facilities were also required to report on source reduction and recycling activities as well.

TRIFACTS (Toxic Chemical Release Inventory Facts) supplements the environmental release data on chemicals in the TRI series of files, with information related to the health and ecological effects, and safety and handling of these chemicals. There is a TRIFACTS record for most TRI chemicals. The data may be especially useful to workers, employers, community residents and health professionals.

TEHIP Contact

Inquiries about the Toxicology and Environmental Health Information Program or any of its products or services should be addressed to:

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NLM HYPERDOC,™ WORLD WIDE WEB, & THE INTERNET

Introduction

Interest in information delivery via the global communications network known as the Internet is growing rapidly, as information providers come to appreciate the added control, economy, speed, wide access, and presentational flexibility offered by this computer network. The U.S. National Library of Medicine (NLM) is actively experimenting with the Internet for the delivery of biomedical information. HyperDOC, a World Wide Web server, is part of that effort. There are many Web browsers capable of accessing the full hypertext/multimedia services offered by HyperDOC.

The Internet

The Internet is a global network connecting many thousands of smaller computer networks, millions of computers, and many millions of computer users. Born as a small federally-funded research network in the U.S. in the late 1960s, the Internet has been privatized, and is a major underpinning of the U.S. National Information Infrastructure (NII). The Internet relies on open standards, technical specifications which are publicly available, enabling any interested party to develop software which implements the standard. Of particular note are the communications protocols developed in conjunction with the Internet, including telnet and ftp. Many Internet-related communications standards follow the server-client model; a computer known as a server provides information to multiple clients over the network.

Within the past several years, important new software tools and protocols have appeared for network-based information retrieval: gopher, World Wide Web, and the ANSI/NISO Z39.50 standard (an earlier version of which is employed in the currently available public domain implementations of Wide Area Information Servers, or WAIS).

The World Wide Web (WWW)

World Wide Web was invented by a physicist, Tim Berners-Lee, at CERN in Geneva, Switzerland. The Web is a multimedia system: it allows the easy sharing of computer files containing text, images, sound, and motion pictures, distributed throughout the entire Internet. The Web is hypertext-based: a user navigates Web-accessible documents by clicking a mouse button over a highlighted text item or image. Two key WWW standards are: HyperText Markup Language (HTML), which specifies how to create hypertext documents; and, HyperText Transport Protocol (HTTP), which defines a communications protocol. Web clients include gateways that access other communications protocols (telnet, ftp, and gopher). Although the Web is most powerfully used on computers with graphical display capability, Web browsers are available for virtually every computer hardware platform from inexpensive character-based computer terminals to sophisticated workstations. The Web has rapidly become the most popular means for network information retrieval.

HyperDOC: A Biomedical Web Server

HyperDOC is a World Wide Web server, developed by the Lister Hill National Center for Biomedical Communications, a research and development arm of the NLM. HyperDOC serves multiple functions: it is a public access point for NLM's services, an experimental platform for NLM's computer scientists, and a tool for demonstrating the latest developments in Web technology. HyperDOC currently allows users to:

- Obtain general information about the NLM and its services, research activities, and current events.
- Access NLM's traditional on-line information services.

- Employ new services designed specifically for HyperDOC, including OnLine Images™ from the History of Medicine and multimedia versions of exhibits from the History of Medicine Division.
- Connect to other Internet-accessible biomedical information resources.

HyperDOC is evolving rapidly, and a major redesign effort is currently underway. New WWW services will appear as developed: Internet Grateful Med® and the Information Sources Map application *Sourcerer*™ are current candidates for inclusion.

How to Connect to HyperDOC

Any World Wide Web client can access HyperDOC via the following Web address, known as a Uniform Resource Locator (URL):

```
http://www.nlm.nih.gov/
```

WWW Clients

In May of 1993, the National Center for Supercomputer Applications (NCSA), part of the University of Illinois at Urbana-Champaign, released NCSA Mosaic for X. The first widely usable Web client, NCSA Mosaic was an enormous success and its use spread rapidly. It has since been joined by many different non-commercial and commercial Web clients. Prominent among the latter is Netscape Navigator.

Web standards are evolving rapidly, under the guidance of the MIT- and INRIA-based World Wide Web Consortium (W^3C, a forum for commercial and academic Web developers), the Internet Engineering Task Force (IETF), and others.

Many clients already support newer HTML features, including:

- Interactive graphical forms (often used for database interfaces).
- Interactive image map support (wherein actions are triggered by clicking over specific locations on an image)
- Tables.

Less widely supported at the time of writing are HTML extensions for mathematical typesetting.

NCSA Mosaic is available via ftp (from: `ftp.ncsa.uiuc.edu`). A list of Web clients is available from the W^3C Web server, by using the following URL:

```
http://www.w3.org/
```

New Developments in Web Technology

World Wide Web technology is evolving rapidly. Two areas of current development hold particular promise.

- The ability to download executable software modules as well as multimedia objects. Sun Microsystems has introduced a Web client, HotJava, that is based on a new C++-like object-oriented computer language, Java™ (`http://www.java.com/`). CNRI has introduced Grail, a WWW client that was built using an interpreted object-oriented language, Python (`http://www.python.org`). It remains to be seen if the daunting security entailed by these systems have been adequately addressed.
- Virtual Reality Modelling Language (VRML) allows the presentation and manipulation of three-dimensional environments. A widely used VRML helper applications is Silicon Graphics' WebSpace program, available for UNIX workstations, the PC, and the Macintosh.

Related Fact Sheets

- Images from the History of Medicine on Internet
- Internet Grateful Med®
- UMLS® Information Sources Map

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